What is claimed:

1. (Original) An albumin fusion protein comprising a member selected from the group consisting of:

(a) a Therapeutic protein:X and albumin comprising the amino acid sequence of SEQ ID NO:1038;

(b) a Therapeutic protein:X and a fragment or a variant of the amino acid sequence of SEQ ID NO:1038, wherein said fragment or variant has albumin activity;

(c) a Therapeutic protein:X and a fragment or a variant of the amino acid sequence of SEQ ID NO:1038, wherein said fragment or variant has albumin activity, and further wherein said albumin activity is the ability to prolong the shelf life of the Therapeutic protein:X compared to the shelf-life of the Therapeutic protein:X in an unfused state;

(d) a Therapeutic protein:X and a fragment or a variant of the amino acid sequence of SEQ ID NO:1038, wherein said fragment or variant has albumin activity, and further wherein the fragment or variant comprises the amino acid sequence of amino acids 1-387 of SEQ ID NO:1038;

(e) a fragment or variant of a Therapeutic protein:X and albumin comprising the amino acid sequence of SEQ ID NO:1038, wherein said fragment or variant has a biological activity of the Therapeutic protein:X;

(f) a Therapeutic protein:X, or fragment or variant thereof, and albumin, or fragment or variant thereof, of (a) to (e), wherein the Therapeutic protein:X, or fragment or variant thereof, is fused to the N-terminus of albumin, or the N-terminus of the fragment or variant of albumin;

(g) a Therapeutic protein:X, or fragment or variant thereof, and albumin, or fragment or variant thereof, of (a) to (e), wherein the Therapeutic protein:X, or fragment or variant thereof, is fused to the C-terminus of albumin, or the C-terminus of the fragment or variant of albumin;

(h) a Therapeutic protein:X, or fragment or variant thereof, and albumin, or fragment or variant thereof, of (a) to (e), wherein the Therapeutic protein:X, or fragment or variant thereof, is fused to the N- terminus and C-terminus of albumin, or the N-terminus and the C-terminus of the fragment or variant of albumin;

(i) a Therapeutic protein:X, or fragment or variant thereof, and albumin, or fragment or variant thereof, of (a) to (e), which comprises a first Therapeutic protein:X, or fragment or variant thereof, and a second Therapeutic protein:X, or fragment or variant thereof, wherein said first Therapeutic protein:X, or fragment or variant thereof, is different from said second Therapeutic protein:X, or fragment or variant thereof;

(j) a Therapeutic protein:X, or fragment or variant thereof, and albumin, or fragment or variant thereof, of (a) to (i), wherein the Therapeutic protein:X, or fragment or variant thereof, is separated from the albumin or the fragment or variant of albumin by a linker;

(k) a Therapeutic protein:X, or fragment or variant thereof, and albumin, or fragment or variant thereof, of (a) to (j), wherein the albumin fusion protein has the following formula:

R1-L-R2; R2-L-R1; or R1-L-R2-L-R1,

and further wherein R1 is Therapeutic protein:X, or fragment or variant thereof, L is a peptide linker, and R2 is albumin comprising the amino acid sequence of SEQ ID NO:1038 or a fragment or variant of albumin;

(l) a Therapeutic protein:X, or fragment or variant thereof, inserted into an albumin, or fragment or variant thereof, comprising the amino acid sequence of SEQ ID NO:1038 or fragment or variant thereof;

(m) a Therapeutic protein:X, or fragment or variant thereof, inserted into an albumin, or fragment or variant thereof, comprising an amino acid sequence selected from the group consisting of:

(i) amino acids 54 to 61 of SEQ ID NO:1038;

(ii) amino acids 76 to 89 of SEQ ID NO:1038;

(iii) amino acids 92 to100 of SEQ ID NO:1038;

(iv) amino acids 170 to 176 of SEQ ID NO:1038;

(v) amino acids 247 to 252 of SEQ ID NO:1038;

(vi) amino acids 266 to 277 of SEQ ID NO:1038;

(vii) amino acids 280 to 288 of SEQ ID NO:1038;

(viii) amino acids 362 to 368 of SEQ ID NO:1038;

(ix) amino acids 439 to 447 of SEQ ID NO:1038;

(x) amino acids 462 to 475 of SEQ ID NO:1038;

(xi) amino acids 478 to 486 of SEQ ID NO:1038; and

(xii) amino acids 560 to 566 of SEQ ID NO:1038;

(n) two or more tandemly oriented Therapeutic protein:X polypeptides, or fragments or variants thereof, fused to the N- terminus of an albumin comprising the amino acid sequence of SEQ ID NO:1038 or fragment or variant thereof; and

(o) two or more tandemly oriented Therapeutic protein:X polypeptides, or fragments or variants thereof, fused to the C- terminus of an albumin comprising the amino acid sequence of SEQ ID NO:1038 or fragment or variant thereof.

2. (Original) The albumin fusion protein of claim 1, wherein the shelf-life of the albumin fusion protein is greater than the shelf-life of the Therapeutic protein:X, or fragment or variant thereof, in an unfused state.

3. (Original) The albumin fusion protein of claim 1, wherein the in vitro biological activity of the Therapeutic protein:X, or fragment or variant thereof, fused to albumin, or fragment or variant thereof, is greater than the in vitro biological activity of the Therapeutic protein:X, or fragment or variant thereof, in an unfused state.

4. (Original) The albumin fusion protein of claim 1, wherein the in vivo biological activity of the Therapeutic protein:X, or fragment or variant thereof, fused to albumin, or fragment or variant thereof, is greater than the in vivo biological activity of the Therapeutic protein:X, or fragment or variant thereof, in an unfused state.

5. (Original) The albumin fusion protein of claim 1, which is non-glycosylated.

6. (Original) The albumin fusion protein of claim 1, which is expressed in yeast.

7. (Original) The albumin fusion protein of claim 6, wherein the yeast is glycosylation deficient.

8. (Original) The albumin fusion protein of claim 6 wherein the yeast is glycosylation and protease deficient.

9. (Original) The albumin fusion protein of claim 1, which is expressed by a mammalian cell.

10. (Original) The albumin fusion protein of claim 1, wherein the albumin fusion protein is expressed by a mammalian cell in culture.

11. (Original) The albumin fusion protein of claim 1, wherein the albumin fusion protein further comprises a secretion leader sequence.

12. (Original) A composition comprising the albumin fusion protein of claim 1 and a pharmaceutically acceptable carrier.

13. (Original) A kit comprising the composition of claim 12.

14. (Original) A method of treating a disease or disorder in a patient, comprising the step of administering the albumin fusion protein of claim 1.

15. (Original) A method of treating a metabolic/endocrine disorder in a patient, comprising administering the albumin fusion protein of claim 1.

16. (Original) A method of treating diabetes or a condition associated with diabetes in a patient, comprising administering the albumin fusion protein of claim 1.

17. (Original) The method of claim 16 wherein the diabetes is Type I diabetes.

18. (Original) The method of claim 16 wherein the diabetes is Type II diabetes.

19. (Original) The method of claim 16 wherein the condition is hyperglycemia.

20. (Original) The method of claim 16 wherein the condition is neural disorder.

21. (Original) The method of claim 20 wherein the disorder is neuropathy.

22. (Original) The method of claim 16 wherein the condition is retinopathy.

23. (Original) The method of claim 16 wherein the condition is a cardiovascular disorder.

24. (Original) The method of claim 23 wherein the condition is heart disease.

25. (Original) The method of claim 16 wherein the condition is renal disorder.

26. (Original) A method of treating obesity in a patient, comprising administering the albumin fusion protein of claim 1.

27. (Original) A method of maintaining a basal glucose level in a patient, comprising administering the albumin fusion protein of claim 1.

28 (Original) A method of losing weight in a patient, comprising administering the albumin fusion protein of claim 1.

29. (Original) A method of extending the shelf life of Therapeutic protein:X, or fragment or variant thereof, comprising the step of fusing the Therapeutic protein:X, or fragment or variant thereof, to albumin, or fragment or variant thereof, sufficient to extend the shelf-life of the Therapeutic protein:X, or fragment or variant thereof, compared to the shelf-life of the Therapeutic protein:X, or fragment or variant thereof, in an unfused state.

30. (Original) A nucleic acid molecule comprising a polynucleotide sequence encoding the albumin fusion protein of claim 1.

31. (Original) A vector comprising the nucleic acid molecule of claim 30.

32. (Original) A host cell comprising the nucleic acid molecule of claim 31.